Review

Modern Quaternary Research in Southeast Asia. Gert-Jan Bartstra and Willem Arnold Casparrie, eds. Rotterdam: A. A. Balkema, 1975. 86 pp., figures, preface, references. U.S.$7.50, £3.25, A.$6.50 (cloth).

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These "papers read at the Symposium on Modern Quaternary Research in Indonesia Groningen/16 May 1974 in memory of Dr. H. R. Van Heekeren" represent the last symposium in which H. R. van Heekeren took part. It is fitting that the proceedings should be published in his memory. I feel that is a partial sign of the esteem in which he was held by the editors of this small but important book that it appeared several months less than a year after the symposium was held, and a partial sign of the esteem in which I held him that I am writing this review less than a year after the symposium was held.

Only five papers are presented here, plus a time chart, "Chronology of the Indonesian Prehistory" (pp. 47–51), by van Heekeren. This was a part of his paper "Chronology and Archaeology in Indonesia" which he presented but was unable to rewrite before his death. The symposium at which these papers were presented was organized by the Palynological Group of the Royal Dutch Geological Mining Society and the Institute for Biological Archaeology of the State University at Groningen. Four of these five papers were presented at the symposium, while the one by Tom Harrisson was the result of a discussion held immediately following the symposium.

The first paper, by H. Th. Verstappen, is "On Palaeo Climates and Landform Development in Malesia" (pp. 3–35). My only dissatisfaction with this paper is that it does not define Malesia. I suppose the term applies to Malaysia-Indonesia. Whatever the case may be, it is an extremely important paper for an ecologically oriented archaeology of the Pleistocene and early Holocene of this area. In it Verstappen discusses "postulated palaeo climates" (pp. 3–11), the "floral and faunal response" (pp. 11–16) to these climates, and the "effects on land form development" of these climates and the changes in them. There is so much of importance in this paper that a summary would almost require verbatim repetition. I will quote only the first sentence of the "Conclusions" (pp. 28–29) as an enticement. "It can be concluded that drier conditions with lower precipitation values and a longer dry season, have occurred in Malesia during the Pleistocene glacials."

D. A. Hooijer is the author of the second paper, "Quaternary Mammals West and East of Wallace's Line" (pp. 37–46). This is a distillation of several palaeontological papers Hooijer has published over the last few years on elephant, stegadon, and other fossil finds in Sulawesi, Flores, Timor, and Java. The logical conclusions from these data are that the elephant moved from Java to Sulawesi by way of Borneo, Palawan, other Philippine Islands, and south from Mindanao, and that the stegadon come to Timor, Flores, and Sulawesi from mainland Asia by way of the Philippines and the same land bridge from Mindanao to Sulawesi as the elephant. Hooijer considers that these three Indonesian islands had an interbreeding population of stegadon, and, at the suggestion of Tom Harrisson, feels the single large land mass of that former time might be called Stegoland (p. 43). There is much deep water between these islands today, but a study by M. G. Audley-Charles

(pp. 42–43) indicates how the former dry land came to be so deeply covered. Perhaps here we have a true ancient "Mu."

Following van Heekeren's chart comes Harrisson's paper "Tampan: Malaysia's Palaeolithic Reconsidered" (pp. 53–70). Harrisson points out that Ann Sieveking's dating of the Tampanian to the first interglacial or early second glacial is based on D. C. Walker's geological conclusion that the 70-m terrace gravels, in which the Tampanian "tools" were found, were deposited under a sea level at least 70 m higher than today, this high sea level being that of the first interglacial. This having been a high sea level was necessary, as isostatic change of land level in Malaya was of little importance (p. 57). Neville Haile, " '. . . from an examination of the literature, and from his own fieldwork in Selangor and Perak, [reports] that there is no evidence for Cenozoic marine deposits in West Malaysia at an elevation greater than 15 meters' " (p. 58). Supporting the early date for these terraces had been an ash layer overlapping the terrace gravels, which were attributed to a major eruption of Mt. Toba in Sumatra that supposedly took place ". . . in 'remote prehistoric times' " (p. 58). Recent C-14 dates from this ash are close to 34,000 years. Harrisson therefore concludes that while now the only dating for the Tampanian terrace gravels is earlier than 34,000 years, it is very unlikely that they are Early Pleistocene, and more likely they are much later (p. 59). Harrisson proceeds to discuss the Tampanian tool types, comparing these to other "crude" tool types in Southeast Asia, and ends by suggesting the possibility that the Tampanian is "an early, crude form, or pre-cursor of Hoabinhian" (p. 67), having pointed out earlier that we have no idea where the Hoabinhian might have originated (pp. 65–66); all of which seems a reasonable argument to me.

The fifth paper, B. Polak's "Character and Occurrence of Peat Deposits in the Malaysian Tropics" (pp. 71–81), is not of as direct interest to archaeologists as the preceding papers. From his description of these quite widespread, primarily coastal peat swamps, man would have stayed clear of them, except possibly at their edges. They do present ideal conditions for the preservation of pollen and wood, so for any archaeological site found at the edge of one of these areas it would be wise to take samples from the nearby edge of the present or former swamp for a pollen column. It would also be well to explore this edge for possible wooden tools, boats, etc., that may have been preserved in the peat.

The final paper, "Pollen Analytical Studies of Peat and Coal from Northwest Borneo," by Jan Muller (pp. 83–86), is primarily of botanical and ecological interest in terms of the succession of plants within the peat swamps of northern Sarawak and Brunei. Peat accumulation began in at least one of these areas only about 4000 years ago.

The impact of the papers in this short book points primarily to future work in the pleistocene ecology and archaeology of the area of Malesia (?). There is a whole series of new problems which can be formulated and investigated. I have not heretofore been an Indonesian specialist, but from my slight acquaintance with Indonesian prehistory I have felt that most possible problems, over and above simply trying to find out what was in a given area at a given time, had to be quite local, as the known data were floating with little reference to any framework. I feel that from this book a framework will quickly be developed. Van Heekeren, I feel, would feel proud if he could know that "his book" may lead to a new era in Indonesian prehistoric investigations.